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REQUEST FOR RECONSIDERATION  
EXPEDITED PROCEDURE EXAMINING GROUP 1700

BOX AF

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Fumio ABE et al.

Group Art Unit: 1764

Serial No.: 08/857,585

Examiner: Nadine Preisch

Filed: May 16, 1997

For: HEATER AND CATALYTIC CONVERTER

REQUEST FOR RECONSIDERATION

Assistant Commissioner for Patents  
Washington, D. C. 20231

Sir:

Applicants request reconsideration of the Final Rejection mailed August 9, 1999 in view of the following remarks.

The rejection of claims 3, 5, 6, 12, and 14 under 35 USC 103 as allegedly unpatentable over the translation of Hei '247 in view of Eberly, Jr. et al. '488 is once more respectfully traversed. Applicants set out at length in the Amendment Under 37 CFR 1.111 filed June 21, 1999 why the claims as then amended clearly and patentably define over the cited references. Applicants pointed out then and point out now that the art considered singly or in combination does not recognize the effect of the alkali metal content on the performance of the system. The Examiner is directed

to the comments appearing in the last paragraph of page 4 and the first two paragraphs of page 5 of that last response for a discussion of this aspect of the invention.

There was no comment in the Final Rejection regarding applicants' discussion of the advantages to be gained by having such alkali metal controls. Applicants acknowledge the comment at page 3, lines 7 to 9 of the Final Rejection that Hei '247 "is considered to encompass applicants' alkali metal content of 0.1% by weight or less because 'less' is considered to encompass 0%." The statement, however, provides no reason for alkali metal content control. Applicants have explained and showed already why the alkali metal content of the zeolite used in the claimed adsorbent structure needs to be controlled.

Applicants agree with the Examiner that the primary reference teaches a possible inclusion of an alkali metal in zeolite. The reference merely describes a very generic general formula of zeolite; see the fourth paragraph at page 5 of the English translation of Hei '247. The depicted general formula shows that sodium or potassium may be present in the zeolite. Applicants believe that such a general description makes it quite difficult, even for people of skill in the art to draw any conclusion with respect to whether the zeolite described therein should have a restricted alkali content. On the contrary, one may say that the

normal alkali content in zeolite is greater than 0.1%; see for example, column 2, lines 19 to 29 of Eberly et al. (see especially the formula) and Example 1 of the Inoue et al. patent, a second primary reference used to reject the claims. The Examiner is directed to the formula at column 4, line 49 in Inoue et al.

As previously noted, there was no comment in the Final Rejection regarding the need to control the alkali content. Applicants again direct the Examiner's attention to the previously mentioned arguments at pages 4 and 5 of the response filed June 21, 1999.

Applicants respectfully request clarification with respect to the first sentence on page 5 of the Final Rejection. The claims specify the Si/Al ratio and the alkali metal content of the high-silica zeolite used in the adsorbent structure. The relationship involving those values and BET is discussed in the application and in the last reply. The necessary elements are indeed "contained in the claims."

Applicants furthermore respectfully point out that the influence of water on the adsorption can be eliminated or minimized by using a zeolite having a specific Si/Al ratio; see Table 1 and the remarks at page 22, line 16 to page 23, line 7 of the application. Control of the Si/Al ratio also has an effect on BET for the thermal resistance.

Applicants respectfully submit that the claims contain all necessary elements or features in support of their case for patentability. The Si/Al ratio and the alkali metal content are specified. With these values, one achieves the BET and influence on water properties already discussed; those properties follow from using a high silica zeolite having the Si/Al ratio and alkali metal content values set out in the claims. The first full paragraph on page 5 of the Final Rejection suggests that the claims require something more. Applicants believe the claims are adequate. The Examiner is asked to contact applicants' attorney if she thinks the claims require more.

Further in support of the patentability of the instantly claimed subject matter, enclosed is a Declaration by Ms. Naomi Noda reporting the BET values for a zeolite having an Si/Al ratio of 25, i.e., below the ratio specified in the instant claims. A review of the Table at page 2 of that paper shows that the zeolite lacks sufficient thermal stability. Applicants therefore respectfully submit that claims 3, 5, 6, 12, and 14 patentably define over Hei '247 in view of Eberly Jr. '448 and the rejection should be withdrawn.

Applicants also respectfully traverse the rejection of all claims under 35 USC 103 as allegedly unpatentable over Hei '247 in view of Inoue et al. '236. The secondary reference does not supply

the necessary disclosure to overcome the deficiencies of the primary reference and the rejection should be withdrawn.

In view of the foregoing remarks, it is respectfully submitted that all claims are in immediate for condition for allowance and a Patent and Trademark Office paper to those ends is earnestly solicited.

The Examiner is requested to telephone applicants' attorney at the number below if further changes are required prior to allowance.

Respectfully submitted,

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December 6, 1999

Date

CAW/ch

Enclosure: Declaration of Naomi Noda

Attorney Docket No.: WATK:040E

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